

# Recovery Plan Action Status

Plan Name: Sonora Chub

Plan Status: Final

Plan Date: 30-Sep-92

Lead Agency: USFWS

Lead Office: Arizona Ecological Services Field Office

(260210242-0210 )

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
Sonora chub (Gila ditaenia)	1	1	Recognize critical habitat	Complete	Prior to FY 1995	Prior to FY 1995	Arizona Department of Game and Fish, U.S. Fish and Wildlife Service, Endangered Species Division, U.S. Forest Service, USFWS Regional Office 2	Other: Regulations	Labor type not yet selected	Critical habitat was designated concurrent with listing. Initiation was date of proposed rule (49 FR 23402). Conclusion was date of final rule (51 FR 16042). Additional occupied stream (California Gulch) located in 1995 by AGFD, but not presently under consideration for addition to GIDI CH.
Sonora chub (Gila ditaenia)	3	10	Determine survivorship by age group	Not Started			Arizona Department of Game and Fish, Centro Ecologico de Sonora, U.S. Fish and Wildlife Service, Endangered Species Division, U.S. Forest Service, USFWS Regional Office 2	Work type not yet selected	Labor type not yet selected	
Sonora chub (Gila ditaenia)	3	11	Determine disease and parasites	Not Started			Arizona Department of Game and Fish, Centro Ecologico de Sonora, U.S. Fish and Wildlife Service, Endangered Species Division, U.S. Forest Service, U.S. Fish and Wildlife Service, Fisheries Resource Division, USFWS Regional Office 2	Work type not yet selected	Labor type not yet selected	

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Sonora chub (Gila ditaenia)	2	12	Determine diel, seasonal, and annual distribution of life stages	Not Started			Arizona Department of Game and Fish, Centro Ecologico de Sonora, U.S. Fish and Wildlife Service, Endangered Species Division, U.S. Forest Service, USFWS Regional Office 2	Work type not yet selected	Labor type not yet selected	Could be combined with II.A or other habitat work
Sonora chub (Gila ditaenia)	3	13	Determine other factors pertinent to perpetuation of Sonora chub	Not Started			Arizona Department of Game and Fish, Centro Ecologico de Sonora, U.S. Fish and Wildlife Service, Endangered Species Division, U.S. Forest Service, USFWS Regional Office 2	Work type not yet selected	Labor type not yet selected	
Sonora chub (Gila ditaenia)	2	14	Determine fish-habitat relationships	Not Started			Arizona Department of Game and Fish, Centro Ecologico de Sonora, U.S. Fish and Wildlife Service, Endangered Species Division, U.S. Forest Service, USFWS Regional Office 2	Work type not yet selected	Labor type not yet selected	
Sonora chub (Gila ditaenia)	2	15	Determine precipitation-runoff relationships	Not Started			Centro Ecologico de Sonora, U.S. Fish and Wildlife Service, Endangered Species Division, U.S. Geological Survey, U.S. Forest Service, USFWS Regional Office 2	Work type not yet selected	Labor type not yet selected	

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Sonora chub (Gila ditaenia)	3	16	Evaluate relationships of runoff-inream flow needs	Not Started			Arizona Department of Game and Fish, Centro Ecologico de Sonora, U.S. Fish and Wildlife Service, Endangered Species Division, U.S. Forest Service, USFWS Regional Office 2	Work type not yet selected	Labor type not yet selected	
Sonora chub (Gila ditaenia)	2	17	Establish captive reserve populations	Not Started			Arizona Department of Game and Fish, Centro Ecologico de Sonora, U.S. Fish and Wildlife Service, Fisheries Resource Division, USFWS Regional Office 2	Work type not yet selected	Labor type not yet selected	
Sonora chub (Gila ditaenia)	2	18	Determine the genetic variability of the species	Not Started			Arizona Department of Game and Fish, Centro Ecologico de Sonora, U.S. Fish and Wildlife Service, Endangered Species Division, U.S. Forest Service, USFWS Regional Office 2	Work type not yet selected	Labor type not yet selected	
Sonora chub (Gila ditaenia)	2	19	Produce an information pamphlet	Not Started			Arizona Department of Game and Fish, U.S. Fish and Wildlife Service, Endangered Species Division, U.S. Forest Service, USFWS Regional Office 2	Work type not yet selected	Labor type not yet selected	
Sonora chub (Gila ditaenia)	1	2	Remove nonnative fishes as needed	Not Started			Arizona Department of Game and Fish, U.S. Fish and Wildlife Service, Endangered Species Division, U.S. Forest Service, USFWS Regional Office 2	Work type not yet selected	Labor type not yet selected	5,000/removal (as needed)

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Sonora chub (Gila ditaenia)	2	20	Issue news releases	Not Started			Arizona Department of Game and Fish, Centro Ecologico de Sonora, U.S. Fish and Wildlife Service, Endangered Species Division, U.S. Forest Service, USFWS Regional Office 2	Work type not yet selected	Labor type not yet selected	
Sonora chub (Gila ditaenia)	2	21	Develop and conduct interpretive programs	Not Started			Arizona Department of Game and Fish, Centro Ecologico de Sonora, U.S. Fish and Wildlife Service, Endangered Species Division, U.S. Forest Service, USFWS Regional Office 2	Work type not yet selected	Labor type not yet selected	Interpretive display at trailhead in 1993
Sonora chub (Gila ditaenia)	2	22	Provide status information to interested parties	Not Started			Arizona Department of Game and Fish, Centro Ecologico de Sonora, U.S. Fish and Wildlife Service, Endangered Species Division, U.S. Forest Service, USFWS Regional Office 2	Work type not yet selected	Labor type not yet selected	
Sonora chub (Gila ditaenia)	3	3	Determine water use patterns and protect water rights	Not Started			Arizona Department of Game and Fish, U.S. Fish and Wildlife Service, Endangered Species Division, U.S. Forest Service, USFWS Regional Office 2	Work type not yet selected	Labor type not yet selected	FS may have this information
Sonora chub (Gila ditaenia)	2	4	Incorporate Sonora chub management needs into management plans for Goodding RNA and Pajarita Wilderness	Not Started			Arizona Department of Game and Fish, U.S. Fish and Wildlife Service, Endangered Species Division, U.S. Forest Service, USFWS Regional Office 2	Work type not yet selected	Labor type not yet selected	

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Sonora chub (Gila ditaenia)	1	5	Ensure habitat integrity	Not Started			Arizona Department of Game and Fish, U.S. Fish and Wildlife Service, Endangered Species Division, U.S. Forest Service, USFWS Regional Office 2	Work type not yet selected	Labor type not yet selected	
Sonora chub (Gila ditaenia)	2	6	Survey all existing and potential habitats	Partially Complete	Prior to FY 1995		Arizona Department of Game and Fish, Centro Ecologico de Sonora, U.S. Fish and Wildlife Service, Endangered Species Division, U.S. Forest Service, USFWS Regional Office 2	Research: Population Surveys	Graduate Student, Internal Field Assistance, Internal Technical Assistance, Species Expert	Start date is date of final rule (51 FR 16042). Surveys are not systematic in US or Mexico. Previously unknown GIDI population located in California Gulch by AGFD in 1995. GIDI have also been located in Rio Cocospera at Rancho el Aribabi, Sonora, Mexico.
Sonora chub (Gila ditaenia)	2	7	Establish and maintain standardized monitoring techniques for fish and habitat	Not Started			Arizona Department of Game and Fish, Centro Ecologico de Sonora, U.S. Fish and Wildlife Service, Endangered Species Division, U.S. Forest Service, USFWS Regional Office 2	Work type not yet selected	Labor type not yet selected	
Sonora chub (Gila ditaenia)	3	8	Determine reproductive variables	Not Started			Arizona Department of Game and Fish, Centro Ecologico de Sonora, U.S. Fish and Wildlife Service, Endangered Species Division, U.S. Forest Service, USFWS Regional Office 2	Work type not yet selected	Labor type not yet selected	

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Sonora chub (Gila ditaenia)	2	9	Determine effects of predation and competition	Not Started			Arizona Department of Game and Fish, Centro Ecologico de Sonora, U.S. Fish and Wildlife Service, Endangered Species Division, U.S. Forest Service, USFWS Regional Office 2	Work type not yet selected	Labor type not yet selected	